received it from the Beavers captured at the mouth of the Rhone in France. Skins of Beavers from the Hudson's Bay region have yielded specimens while others from Alaska have given both Platypsylla and Leptinillus. Recently the Beavers of Texas have furnished specimens.

Miscellaneous Coleopterous Studies.

BY GEORGE H. HORN, M. D.

The following pages have not been used as the means of describing isolated species merely, although several have been included. From time to time the question is often asked as to the differences between closely allied species, more especially of those genera that have not been studied as a whole. As it is not always convenient to give in detail in letters to each correspondent the information desired, several studies, based on questions asked, have been made and are here presented for the benefit of all.

ANILLUS Duval.

A. explanatus n. sp.—Pale rufotestaceous, shining. Head rather large, frontal impressions deep and broad, surface smooth. Antennæ nearly half as long as the entire body, gradually thicker externally, the joints verticillate, the second longer and stouter than the third. Thorax trapezoidal, a little wider than long, sides arcuate anteriorly, oblique behind, the margin narrowly reflexed, but more broadly near the hind angles, these nearly rectangular, slightly obtuse, median line finely impressed, the space behind the posterior transverse impression somewhat depressed and finely rugulose. Elytra abruptly wider at base than the thorax, humeral angles prominent, but obtuse; general form oval, broadest in front of middle, the sides somewhat explanate from the humeri two thirds to apex external to a deep stria bearing subocellate punctures, the margin distinctly serrate near the humeri; disc moderately convex, the striæ nearly obsolete, forming an oval space at the middle of the surface, the first stria indistinctly punctured, the submarginal rather deep and with subocellate punctures; surface distinctly alutaceous near the base, smoother near the apex. Body beneath smooth. Legs slender, middle tibiæ broadened at basal half. Length .08 inch; 2 mm. Pl. iii, fig. 25.

One specimen, ♀, "Alabaster Cave," California.

The species of Anillus now known to inhabit our fauna are as follows:

Elytra somewhat explanate at the sides, the margin serrate near the humeri.
explanatus *Horn.*

Elytra of regular oblong oval form, the sides not explanate, margin not serrate.

Thorax scarcely wider than long, obliquely narrowing to base, which is narrower than the apex. ..... **debilis** *Lec.*

Thorax very obviously wider than long.

Median line of thorax distinctly impressed, the base a little narrower than the apex ..... **fortis** *Horn.*

Median line scarcely visibly impressed, the base not narrower than apex. **Dohrni** *Ehlers.*

The first two species are from California, *fortis* from Tennessee, *Dohrni* from Florida. They are extremely rare in collections, their small size and mode of life rendering them difficult to collect.

ÆGIALITES Mann.

Mentum twice as wide as long, sides irregularly converging to the front, apex truncate.

Ligula short, transverse, feebly emarginate in front, the angles rounded, sparsely ciliate in front with two longer setæ each side.

Maxillæ with two distinct lobes, the inner narrow, parallel, apex obtuse, with a few spines and sparsely ciliate, outer lobe broader, but obtuse, with short spiniform hairs at the inner angle.

Mandibles rather stout, apex emarginate, inner edge deeply notched within the apex.

Labial palpi short, three-jointed, arising behind the mentum on each side of the base of the ligula, last joint oval, rather longer than either of the others.

Maxillary palpi four-jointed, first very short, second clavate third shorter, fourth fusiform, truncate, longer than either of the others.

The above details are intended to supply the deficiencies existing in the descriptions of the mouth parts of Ægialites. The accompanying figures (Pl. iii, fig. 23, *a*, *b*, *c*, *d*) will give a sufficiently accurate idea of the form of the mouth parts.

OTHNIUS Lec.

This name is introduced to call attention to the figures of the mouth parts, and to correct an error in the "Classification." The ligula does not have distinct paraglossæ. The first joint of the labial palpi is ciliate with moderately long fine hairs within, which are curved at their apices, giving the appearance of paraglossæ when the dissection is mounted in Canada balsam.

In the figure of the mentum there will be observed a depression on each side of middle with a brush of short hairs at bottom. This is a male character, the female mentum being entirely plain. Pl. iii, fig. 24, *a*, *b*, *c*.

In *O. umbrosus* Lec. ♂, the foveæ are large and narrowly separated; in *longicornis* Horn they are small and widely separated, and in *lugubris* Horn the foveæ forms but one transverse depression. Males of *fasciatus* are not now before me.

O. guttulatus Lec. should be dropped from our lists, as there was never a type in hand from which to make a description.

LAGRIIDÆ.

This family is represented in our fauna by a small number of species which have never been treated collectively, consequently their determination is difficult, the names having been transmitted from one cabinet to another in a traditional manner.

Two genera are recognized in our fauna:

Head not constricted to a neck, eyes transverse, reniform, not prominent. **Arthromacra.**

Head constricted behind the eyes, which are large, convex and prominent. **Statira.**

The tibiæ are usually described as having no terminal spurs, but in all the species before me the spurs are distinct, but very small.

ARTHROMACRA Kby.

A. ænea Say (*Lagria*), Long's Exped. ii, p. 287; edit. Lec., i, p. 191; *donacioides* Kby., Fauna Bor. Am. p. 238.—Body beneath and legs dark bronze, above usually with brilliant metallic lustre, either blue, green, cupreous, or dark bronze. Antennæ reddish-brown, tarsi somewhat darker. Head and thorax sparsely punctate, the latter cylindrical, longer than wide, the base slightly expanded, lateral margin entirely obliterated. Elytra rarely with faint traces of striæ near the apex, the surface coarsely and moderately closely punctate, sometimes rugose. Body beneath very sparsely punctate. Length .37—.50 inch; 9.5—13 mm.

In the male the last joint of the antennæ is equal to the four preceding joints, in the female to three. The outer edge of the tibiæ is rounded, as in the majority of our species of Statira.

STATIRA Serv.

Our species are few in number, and may be distinguished in the following manner:

Tibiæ sulcate on the outer edge.
Setigerous punctures of the alternate intervals numerous; tibiæ sulcate nearly their entire length ..... **pluripunctata.**
Setigerous punctures few, mostly on the third interval; tibiæ sulcate below apical half only ..... **subnitida.**
Tibiæ rounded on the outer edge, not sulcate.
Setigerous punctures numerous on first, third, fifth and seventh intervals. **opacicollis.**
Setigerous punctures entirely absent from first interval.
Thorax bright orange-red.
Legs piceous ..... **resplendens.**
Legs pale yellow ..... **croceicollis.**
Thorax more or less piceous, body concolorous above.
Thorax polished, the punctures fine, but distinct; legs piceous, the basal half of femora and coxæ pale yellow..... **basalis.**

The first three species occur in Arizona and Lower California, and are without metallic lustre, the others belong to the Atlantic region, and have more or less metallic lustre.

S. pluripunctata n. sp.—Body beneath and legs reddish brown, abdomen and elytra piceous, surface opaque, without metallic lustre. Antennæ half as long as the body, brown or piceo-testaceous. Head scabrous, always darker in color in the male. Thorax longer than wide, sides feebly arcuate, the base slightly explanate, lateral margin rounded, without distinct edge even at base, surface scabrous, opaque. Elytra striate, striæ finely and closely punctate, intervals very slightly convex, the alternate intervals 1-3-5-7-9 with setigerous punctures extending from base to apex, but not closely placed, surface subopaque. Body beneath smooth, shining. Tibiæ sulcate their entire length on the outer side. Length .25—.37 inch; 6—9.5 mm.

The antennæ are a little more than half the length of the body, the terminal joint in the female equal to the three preceding joints.

The color described is that of fully mature specimens, but the majority of those before me are imperfectly piceous as in very many *gagatina*. The sulcation of the outer edge of all the tibiæ is seen in but one other of our species. It is probable that some of the Mexican species may have this character, but I have not found it mentioned. Only females have been seen.

Occurs in Arizona.

S. subnitida Lec. New Species 1866, p. 141.—Piceous or dark brown, subopaque. Antennæ paler brown. Head sparsely punctate. Thorax finely scabrous, lateral margin obliterated. Elytra striate, striæ closely, scarcely crenately punctured, first interval with but three setigerous punctures placed near the apex, third with six to eight from base to apex, fifth with about three near the apex, seventh and ninth without any, a few near the margin close to the apex. Body beneath smooth, feebly shining. Tibiæ grooved on their outer edge near the apex only. Length .28—.43 inch; 7—11 mm.

The two specimens examined are the types in the collection of LeConte, both females. The terminal joint of the antennæ is equal to the three preceding. In one of the two specimens the thorax is distinctly longer than wide, the sides feebly arcuate, the other specimen is larger, thorax as wide as long, the sides arcuate.

This species occupies an intermediate position between *pluripunctata* and the species which follow, being related to the former by the grooved tibiæ, and to the latter by the very few setigerous punctures.

Occurs in Lower California.

S. opacicollis n. sp.—Piceous brown, shining, antennæ and legs much paler, head and thorax darker and opaque. Head sparsely punctate. Thorax longer than wide, sides very feebly arcuate, lateral margin slightly distinct, surface finely scabrous. Elytra striate, striæ crenately punctured, intervals slightly convex, the first, third, fifth and seventh with numerous setigerous punctures from base to apex, the ninth with few behind the middle, a few along the lateral margin behind the middle. Body beneath smooth, shining, paler than above. Outer edge of tibiæ rounded, not grooved. Length .35—.40 inch; 9—10.5 mm.

The antennæ are a little longer than half the body, the terminal joint in the male equal to five and the female to three preceding.

By its very numerous setigerous punctures this species is related to *pluripunctata*, but the tibiæ are simple, not grooved on the outer edge.

Occurs in Arizona (Morrison).

S. resplendens Mels. Proc. Acad. 1845, p. 311.—Piceous, shining, elytra with slight æneous lustre, thorax reddish yellow, legs piceous or paler. Antennæ piceous, scarcely half as long as the body. Head sparsely punctate. Thorax a little longer than wide, sides feebly arcuate, base slightly explanate, surface sparsely finely punctate. Elytra striate, striæ finely and closely, but not crenately punctured, intervals slightly convex, the first without setigerous punctures, the third and fifth with very few behind the middle, others close to the border near the apex. Body beneath nearly smooth, shining. Length .30 inch; 7.5 mm.

The antennæ are entirely piceous, the terminal joint equal to the five preceding in the male and three in the female.

In the short diagnosis given by Melsheimer the legs are said to be yellow, but in the more detailed description are pale brown. It is evident that he had immature specimens before him and did not properly discriminate.

Occurs in the Middle States region.

S. croceicollis Mäkl., Acta Fenn. 1863, p. 594.

Closely related to the preceding species and differing in the following particulars:

Elytra distinctly blue, the first interval without setigerous punctures, the third and fifth with about eight placed from the base to apex, seventh interval without, ninth with five or six in its apical half. Legs and coxæ pale reddish-yellow. Length .28—.37 inch; 7—9.5 mm.

The antennæ are not quite half the length of the body, the terminal joint in the male equal to five preceding and in the female to three and a half.

Occurs in the southeastern Atlantic region, Florida, Georgia and Alabama.

S. gagatina Mels., Proc. Acad. 1845, p. 311.—Piceous shining, elytra with faint metallic lustre. Antennæ brown. Head sparsely punctate. Thorax very feebly shining, the surface finely alutaceous, the punctuation indistinct, except that in a few specimens some larger punctures are seen near the base. Elytra moderately deeply striate, the striæ finely crenately punctured, intervals slightly convex, the first without setigerous punctures, the third and fifth with very few, seventh without any as also the ninth, a few close to the margin near the apex. Body beneath almost perfectly smooth. Length .25—.31 inch; 6.5—8 mm.

The specimens from the Middle States region are moderately shining and with quite distinct metallic lustre of surface. Three from Texas are distinctly less shining.

In the antennæ of the males of the northern form the terminal joint is about equal to five preceding joints, while in the Texas form it is fully equal to six. In the females of both the last joint equals the three preceding. These seem to be probably local varieties, at all events having but one ♂ of the Texas form, it is not possible to say if the variation is constant. In this species the legs are uniform in color, in the fully developed specimens piceous, varying to piceo-testaceous in the less mature forms.

In the specimens collected by Mr. Ulke, near Washington, the thorax is very often quite pale, contrasting very decidedly with the color of the elytra, but there is never that reddish-yellow seen in *resplendens* and *croceicollis*, nor are the elytra ever of the bright metallic lustre.

Occurs from the Middle States to Texas.

S. basalis n. sp.—Piceous, shining, elytra with distinct metallic blue lustre, legs piceous, the femora at base and coxæ testaceous. Antennæ brown. Head with very few punctures, eyes large and very convex, the posterior canthus very small. Thorax not longer than wide, sides feebly arcuate, base slightly explanate, disc very shining, the punctures small, but distinct. Elytra moderately deeply striate, the striæ crenately punctured, intervals slightly convex, the first without setigerous punctures, third and fifth with very few, seventh and ninth without any, a few close to the margin near the apex. Body beneath smooth, shining. Length .30—.40 inch; 7.5—10 mm.

The antennæ are about half the length of the body, the last joint in the male fully as long as seven preceding joints, while in the female it equals very nearly four.

While closely related to *gagatina* it seems quite a distinct species by the characters above given. Although the eyes are large in all the species, in this one they are especially so, the portion of the head which usually forms quite a conspicuous border behind the eye is here much reduced.

Occurs in Georgia, Florida and Louisiana.

It seems worthy of remark that the species of this genus have one or rarely two setigerous punctures on each side of the abdominal segments placed in the same position as in the Carabidæ.

MELANDRYIDÆ.

EUSTROPHUS Latr.

This genus contains but few species, the majority of those described being members of our fauna. As in the case of Statira the descriptions are scattered, somewhat indefinite, and from their isolation very little comparative. As the majority of the species are known in nearly all collections, and as the knowledge of them is purely traditional, it is now proposed to give a few comparative notes.

In the first place it has been observed that two species differ notably from the others in the form of the prosternum and absence of striæ of punctures, it is therefore proposed to divide the genus in the following manner:

Prosternum narrowing to a point and not prolonged behind the coxæ; elytra with striæ of moderate or coarse punctures..... .. ..**Eustrophus.**

Prosternum prolonged behind the coxæ and separating them, the apex somewhat broader; elytra finely, confusedly punctured..... .....**Holostrophus.**

As restricted above, Eustrophus contains a small number of very closely related species difficult to separate by superficial comparison, and of almost impossible recognition from the descriptions. The following table and notes may, therefore, be of some service.

The eyes vary in size in two ways. Those species which are distinctly narrowed posteriorly have large eyes very narrowly separated on the front. In the species which are obtuse posteriorly the eyes are smaller and widely separated on the front.

In all the species but one the middle and posterior tibiæ have, on their outer edge, numerous transverse ridges, recalling those of Mor-

dellistena, bearing short, closely placed spinules. In *repandus* these ridges are obliterated to such an extent that scarcely any traces can be observed.

The underside of the prothorax shows two forms of sculpture—that in which the surface is shining and the punctures simple, although closely placed, and that in which the surface is opaque and rather roughly granulate-punctate.

These characters afford the means of arranging the species in tabular form with a sharpness of definition that will enable them to be readily determined.

The following is the arrangement proposed:

Eyes narrowly separated, sometimes almost contiguous on the front; form distinctly narrower posteriorly.....2.
Eyes widely separated on the front; form very little narrowed, obtuse posteriorly*.....4.
2.—Middle and posterior tibiæ without distinctly defined transverse ridges; body beneath and legs piceous.....**repandus.**
Middle and posterior tibiæ with distinct transverse ridges on their outer edge.....3.
3.—Underside of prothorax densely roughly punctured; legs and body beneath piceous.....**arizonensis.**
Underside of prothorax shining, closely, but not roughly punctured; legs and abdomen pale brown or reddish.....**bicolor.**
4.—Piceous black; prothorax beneath shining, the punctures close, but not rough. **confinis.**
Brown; prothorax beneath densely, roughly punctured.....**tomentosus.**

E. repandus n. sp.—Oval, convex, distinctly narrowed posteriorly, moderately shining, sparsely clothed with short blackish hair. Antennæ dark brown or black, the four basal joints paler, apical half of last joint yellow. Eyes very narrowly separated on the front. Thorax densely punctured, the basal impression on each side moderately deep, short. Elytra striato-punctate, the punctures moderately coarse and close, but become rapidly finer, so that at apical fourth they are hardly distinguished from the interstrial punctures which are densely placed on the flat intervals. Prosternum densely punctured, the side pieces more finely slightly shining, sparsely pubescent. Body beneath and abdomen densely punctured. Legs black, the tarsi brown. Middle and posterior tibiæ without transverse setigerous ridges. Length .24—.28 inch; 6—7 mm.

While this species is usually entirely black, the abdomen is occasionally brown, but never so pale as in *bicolor*, nor are the legs ever pale.

* To this series *E. dermestoides*, of Europe, should be referred. From the descriptions the eyes are even more widely separated than in our species.

This species is universally mixed with *bicolor* in collections, but may be known by the entire absence of the tibial ridges, the dark legs and by only the half of the terminal joint of the antennæ yellow.

Its distribution seems to be across the northern half of our country from Canada and New Hampshire to Virginia, and from these points through all the States to the Pacific coast as far south as the extreme north of California.

E. arizonensis n. sp.—Oval, distinctly narrower behind, moderately convex, black, feebly shining, clothed with very short black hair. Eyes narrowly separated. Antennæ black, the four basal joints ferruginous, the last joint entirely yellow. Thorax very closely and finely punctured, the basal impressions vague. Elytra striato-punctate, the punctures moderately coarse and close, becoming finer toward the apex, but easily distinguishable from the interstrial punctures, which are finer and closely placed. Prosternum coarsely and closely punctured, the side pieces densely and roughly punctured and subopaque. Body beneath densely punctured, the abdomen very finely. Legs black-brown, middle and posterior tibiæ with distinct transverse ridges bearing very short, closely placed setæ. Length .26—.30 inch; 6.5—7.5 mm.

This species is the largest known in our fauna. It is rather less attenuate behind than *bicolor* and *repandus*. As in *bicolor* the punctures of the striæ extend distinctly to the apex. From either of the two species cited it differs in the roughly sculptured underside of the prothorax.

The eyes are a little more widely separated than in either *bicolor* or *repandus*, but the distance between the eyes is scarcely more than one-third the width of either eye as seen from above.

Occurs in Arizona and New Mexico.

E. bicolor Fab. (*Mycelophagus*), Ent. Syst. i, 2, p. 497; Syst. El. ii, p. 566; *indistinctus* Lec., Ann. Lyc. v, 1851, p. 151.—Oval, convex, distinctly attenuate posteriorly, black, shining, sparsely pubescent, abdomen and legs ferruginous. Antennæ black, four basal joints reddish, terminal joint entirely yellow. Eyes very narrowly separated. Thorax shining, the punctures fine and close, but not dense, basal impressions vague. Elytra striato-punctate, the punctures moderately coarse, but becoming finer posteriorly, but still quite distinct near the apex, the interstrial punctures close, but not dense nor rough. Prosternum moderately coarsely punctured, the side pieces finely and shining. Body beneath and abdomen rather densely punctured, middle and posterior tibiæ with well marked transverse ridges with short, closely placed setæ. Length .20—.24 inch; 5—6 mm.

Some specimens collected by me in very early spring, in Arizona, have a decidedly brownish color above, although the abdomen and

legs are still paler. These are probably merely less mature specimens as no other structural differences have been observed.

With this species I have united *indistinctus*, as there are no valid differences.

In the two preceding species I have alluded to the characters separating them from *bicolor*.

In its distribution *bicolor* occupies the region more generally south of that occupied by *repandus*. It extends from the New England States southward through Virginia, thence westwardly to Arizona. It occurs also in Kansas.

E. continis Lec., New Species 1866, p. 152.—Oval, convex, nearly equally obtuse at both extremities, black, moderately shining, sparsely clothed with short black hair. Antennæ brownish-black, the basal joints scarcely paler. Eyes widely separated on the front. Thorax finely and closely punctured, the basal impressions feeble. Elytra striato-punctate, the punctures moderately coarse and close, becoming finer toward the tip, but distinct, except at the apex; the interstrial punctures close and slightly rough. Prosternum rather coarsely and closely punctured, the side pieces more finely punctured, not rugose, moderately shining. Body beneath and abdomen densely punctured, the latter more finely. Middle and posterior tibiæ with distinct ridges on the outer edge. Length .24 inch; 6 mm.

This species differs from all the other black ones in our fauna by its form, the rather widely separated eyes and the almost uniform color of the antennæ. The eyes are nearly as widely separated as the width of either eye as seen from above.

Occurs in Canada, Wisconsin and Nebraska.

E. tomentosus Say, Journ. Acad. 1827, p. 293; edit. Lec., ii, p. 305; *niger* Mels., Proc. Acad. 1846, p. 58.—Oval, moderately convex, equally obtuse at either extremity, brown, moderately shining, with short brown pubescence, body beneath and legs a little paler than above. Antennæ uniformly pale brown. Eyes as widely separated on the front as their own width. Thorax closely, not densely punctured, the basal impressions very indistinct. Elytra striato-punctate, the punctures not coarse, becoming fine posteriorly, and at apical third not distinguishable from those of the intervals, these latter dense and somewhat rough. Prosternum coarsely punctured, the side pieces granulate-punctate and subopaque. Abdomen densely and somewhat roughly punctate. Middle and posterior tibiæ with distinct transverse ridges on their outer edge. Length .18—.20 inch; 4.5—5 mm.

This species is scarcely at all variable. The eyes are more widely separated than in any other Eustrophus and approach the form seen in Holostrophus. The underside of the thorax is even more roughly sculptured than in *arizonensis*.

Occurs from the New England States westward to Dacota and Iowa.

HOLOSTROPHUS n. g.

Under this name I have separated three species which differ as follows, while possessing, otherwise, the characters of Eustrophus:

Eyes very widely separated on the front, scarcely emarginate in front and not prolonged over the insertion of the antennæ. Last joint of maxillary palpi oval, obliquely truncate (cylindrical in Eustrophus). Prosternum more widely separating the coxæ, prolonged behind them and slightly broader at apex. Mesosternum prolonged in an obtuse keel, but not mucronate at apex. Fourth joint of antennæ not shorter than the fifth. Elytra without striæ of punctures. Middle and posterior tibiæ without ridges on outer edge.

The species here referred may be separated in the following manner:

Apex of prosternum distinctly margined at tip and sides.
Surface very densely and finely punctured; color uniformly brown; basal impression of thorax linear ..... **impressicollis.**
Apex of prosternum not margined.
Surface densely, but not very finely punctured; color brown, elytra with two wide yellow bands, broadly interrupted by the suture; basal impression of thorax linear..... **bifasciatus.**
Surface more coarsely, not densely punctured; color brown, the elytra gradually paler to base; basal impression of thorax very vague, somewhat triangular..... **discolor.**

H. impressicollis Lec. (*Eustrophus*), Trans. Am. Ent. Soc. 1874, p. 69.—Elongate-oval, depressed, distinctly narrowed posteriorly, brown, feebly shining, sparsely clothed with short brown pubescence. Antennæ reddish-brown, the last joint a little paler. Eyes entirely lateral, not extending above the insertion of the antennæ. Thorax very finely and moderately densely punctured, the basal impressions rather long, linear and sharply defined. Elytra punctured similar to the thorax, a faint trace of a sutural stria. Prosternum coarsely punctured, the apex rounded and distinctly margined, the side pieces densely and finely punctured. Metasternum at sides rather coarsely punctured. Abdomen densely and very finely punctured. Length .20 inch; 5 mm.

In this species the antennæ are rather more slender than the other two, the outer joints being less transverse. The uniform color of the body and the fine, dense punctuation will enable this species to be at once known.

Occurs in Nevada, Vancouver and Washington Territory. Three specimens have been seen in the collections of Dr. LeConte and myself.

H. bifasciatus Say (*Eustrophus*), Long's Exped. ii, 1824, p. 282; edit. Lec. i, p. 186; *quadrimaculatus* Mels., Proc. Acad. 1846, p. 58.—Oval, distinctly narrowed posteriorly, moderately convex, reddish-brown, elytra piceous, with two broad yellow bands interrupted at the suture, surface moderately shining, clothed

with short pubescence of the color of the surface. Antennæ pale reddish-brown, the terminal joint somewhat paler. Eyes entirely lateral. Thorax finely and closely punctate, the basal impressions short and linear. Elytra closely finely punctate, the punctures slightly muricate. Prosternum coarsely punctate, the apex oval acute, not margined, the side pieces less coarsely punctate, but more closely. Metasternum coarsely sparsely punctate. Abdomen densely punctured, the punctures very fine at apex, becoming gradually coarser toward the base. Length .16—.20 inch; 4—5 mm.

The outer joints of antennæ 8–9–10 are transverse, the tenth twice as wide as long. The yellow fasciæ are broadly interrupted at the suture, and their edges are somewhat sinuous, especially in the case of the anterior one.

Occurs from Massachusetts to Virginia and Tennessee.

H. discolor n. sp.—Oval, convex, distinctly narrowed posteriorly, reddish-brown beneath, darker above, the elytra gradually paler to base, surface moderately shining, sparsely clothed with short brownish hair Antennæ with first five and the last joint reddish-yellow, the intermediate joints piceous. Head moderately coarsely punctate, eyes entirely lateral. Thorax relatively coarsely not closely punctate, with few extremely fine interstitial punctures, basal impressions vague. Elytral punctures a little coarser than those of the thorax and not closely placed. Prosternum sparsely distinctly punctate, the apical prolongation obtuse and not margined, the side pieces coarsely sparsely punctate in front, smooth behind. Metasternum coarsely sparsely punctate. Abdomen more closely and finely punctate. Length .14—.16 inch; 3.5—4 mm.

This species is similar in form to *bifasciatus*. The punctuation of the surface, although not coarse, is very conspicuous, and seems coarse in comparison with that of the other species. The antennæ have the bicolored tendency of Eustrophus. The thorax is dark brown, the elytra reddish-brown, becoming paler to the base.

Two specimens collected in Virginia by Mr. Ulke, to whom I must again acknowledge my indebtedness, not only for one of these specimens, but also for the great freedom permitted in the use of his cabinet during a recent visit.

ORCHESIA Latr.

Hitherto but two species have been known in our fauna so nearly alike, except in size, that many collectors doubt their specific distinctness. The occurrence of a new species in the Pacific region affords the opportunity for giving the differences between them all.

Prosternum between the coxæ very narrow and acute at apex.

Luteous or ochreous, the elytra ornate with piceous spots and a fascia. **ornata.**

Castaneous or brown, uniform..... **castanea.**

Prosternum between the coxæ broader and parallel, the apex obtuse.

Castaneous or brown, uniform..... **gracilis.**

The species are remarkable in having the spurs of the middle and posterior tibiæ finely pectinate on their inner or lower edge. The last two species have the eyes moderately closely approximate on the front, while in *ornata* they are distant. For the Scandinavian species of the former type Thomson (Skand. Col. vi, p. 306) retains the name Orchesia, while for the ornate form Clinocera is used. The latter name has not been generally adopted.

O. ornata n. sp.—Very elongate oval, narrower behind, luteous or ochreous, moderately shining, surface clothed with fine yellowish pubescence, elytra with piceous markings. Front densely punctured, three vague impressions, one near each eye, a third on the occiput. Thorax much broader than long, sides arcuate, broadest slightly in front of the middle, surface densely punctured, the basal impressions well marked and oblique. Elytra densely punctured, slightly rugulose near the base, an oval, oblique piceous spot on each elytron near the base, a sinuous fascia one-third from apex, a small piceous spot close to the apex. Body beneath densely punctured, the abdomen very finely. Prosternum very narrow at tip and acute. Length .18 inch; 4.5 mm.

This species is the first representative of the genus from the west coast. The eyes are more distant on the front than in either of the other species, and, in view of a similar occurrence in Eustrophus, does not seem to warrant the division of the genus. That the elytra are ornamented with a design adds another to the many evidences of the similarity of our west coast fauna to that of Europe.

Occurs in Washington Territory and Oregon.

O. castanea Mels., Proc. Acad. 1846, p. 51.—Elongate, scarcely more acute posteriorly, castaneous or brown, pubescence silken brown. Eyes closely approximated on the front. Thorax rather coarsely punctured near the base, more finely in front, the basal impressions vague. Elytra punctured similarly to the thorax, the punctures gradually finer to the apex. Body beneath very closely punctate, the abdomen more finely. Prosternum narrow and acute at apex. Length .14—.20 inch; 3.5—5 mm.

Occurs from Massachusetts to Michigan, southward to Virginia.

O. gracilis Mels., loc. cit.—Similar to *castanea*, but more slender, more narrowed posteriorly, sculpture coarser and more rugose; basal impressions of thorax indistinct. Prosternum parallel between the coxæ and obtuse at tip. Length .14—.16 inch; 3.5—4 mm.

The differences between this species and the preceding are more entitled to generic value than those used to separate species of the *ornata* type.

Occurs from Pennsylvania to Louisiana.

HYPULUS Payk.

This name is here adopted as the correct name of the genus, Dircæa often used, having for its undoubted type *barbatus*, which is in turn the type of the older genus Serropalpus.

In examining the characters used by authors in separating Dircæa and Phlœotrya there does not seem to be any difference. Lacordaire uses the insertion of the antennæ which is entirely illusory. Duval finds the maxillary palpi distinctly dentate in Phlœotrya and the anterior tarsi not dilated, while in Dircæa the palpi are distinctly dentate and the tarsi dilated. These are purely sexual characters. The males of all the species studied in our fauna have the palpi more serrate, the last joint longer, the anterior tarsi dilated. Thomson (Skand. Col. vi) adopts Mulsant's determination of the genera and his Hypulus does not contain the Paykull type.

In our books the name Hypulus should replace Dircæa, and Mystaxus replace Hypulus. Mystaxus *Kug.* has never been characterized by that author, but has been sufficiently described since, and the name is certainly as well worthy of adoption as many of the Erichson genera, which pass without question.

In all the species before me the males have the anterior tarsi rather widely dilated and the last ventral segment truncate or emarginate. In the males of *fusca* the ventral segments 2–3–4 have a transverse space at middle more densely and finely punctured and with the pubescence denser. Unfortunately, the male of *Vaudoueri* sent me by Fauvel has no abdomen, although it is quite certain that this and *fusca* are identical.

The species known to me are as follows:

Marginal line of thorax not visible in front of the middle of the sides... .....2.
Marginal line entire, reaching the apex. ....3.
2.—Thorax rather roughly granulate, elytra densely and finely punctured.
pronus.
Thorax simply punctured.
Elytra entirely piceous .....**Riversii.**
Elytra with two yellow bands.....**bicinctus.**
3.—Antennæ slender, joints longer than wide.
Thorax shining, simply punctate; elytra ornate with yellow spots of irregular shape..... .....**lituratus.**
Thorax opaque rugulose, elytra brown.. ....**Vaudoueri.**
Antennæ with joints somewhat triangular, nearly as wide as long.
concolor.

H. pronus Lec. (*Dircæa*), Proc. Am. Philos. Soc. 1878, p. 426.

Our largest species; of uniform ferruginous brown color and fine

pubescence. It is very obtuse in front, the head strongly deflexed. Length .48 inch; 12 mm.

Occurs at Enterprise, Florida.

H. Riversii Lec. (*Dircæa*), Trans. Am. Ent. Soc. 1884, p. 29 (posthumous).

Dark brown or piceous, moderately shining, the pubescence short, sparse and indistinct. Similar in form to *lituratus*. Length .32—.44 inch; 8—11 mm.

In this species the punctuation of the thorax is coarser than in any other, although preserving its simple and distinct character. On the elytra the punctuation at base is somewhat intermixed, but not to the extent observed in *lituratus*.

Occurs in California, Sylvania. A number of specimens have been sent me by Mr. Rivers, the males three times more numerous than the females.

H. bicinctus n. sp.—Elongate, scarcely narrowed behind, moderately convex, piceous, moderately shining, very finely and sparsely pubescent, thorax margined at base and apex with yellow, elytra with two yellow bands. Antennæ slender, piceo-testaceous. Head vertical, not visible from above, densely and finely punctured. Thorax not longer than wide, narrower in front, sides regularly arcuate, base truncate and slightly narrower, surface moderately densely and finely punctured, the basal impressions absent. Elytra finely and closely punctate, the punctures less distinct toward the apex, color piceous, a broad yellow band on each elytron arcuate, convex in front, not reaching the suture, one-third from base, a second narrow sigmoid band one-third from apex crossing the suture. Body beneath finely, but moderately punctate. Legs brownish. Length .14 inch; 3.5 mm.

This species is the smallest known to me. It is the second of the group discovered on the Pacific coast, and is rather of the type of some of the European species. The lateral margin of the thorax is distinct near the base only, and the marginal line does not extend in front of the middle. This structure is also observed in the two preceding species.

Occurs at Sylvania, California. L. E. Rieksecker.

H. lituratus Lec. (*Dircæa*), List. Col. N. A. p. 66; *quadrimaculatus* Say (*Serropalpus*), Long's Exp. ii, p. 283; edit. Lec., i, p. 187; Hald., Journ. Acad. 1848, p. 98.—Elongate oval, narrower behind, convex, brown or piceous, moderately shining, sparsely pubescent. Antennæ uniformly brown. Thorax with apical border pale, surface moderately closely and finely punctate, not rugulose, the marginal line entire. Elytra moderately closely punctate, somewhat smoother posteriorly, the punctures near the base unequal, color brown, with a yellow spot behind the humeri somewhat in shape like the letter H with the transverse bar broad, posteriorly a sinuous band one-third from apex interrupted at the suture. Body beneath densely and finely punctured, the abdomen similarly punctured in the sexes. Length .30—.44 inch; 7.5—11 mm.

In the males the anterior tarsi are dilated as usual, and the last ventral segment emarginate. The markings vary somewhat on the elytra, but not greatly from that described.

Occurs from Canada to Virginia and Missouri. The males seem the more rare.

H. Vaudoueri Muls. (*Phlœotrya*), Col. Fr. Barbip. p. 79, pl. i, fig. 11; *fusca* Lec. (*Dircæa*), Proc. Am. Philos. Soc. 1878, p. 619.—Elongate, cylindrical, slightly depressed, dark brown, feebly shining, sparsely clothed with short brown pubescence. Antennæ slender, ferruginous, outer joints all longer than wide. Front moderately closely punctate. Thorax usually a little longer than wide, apical margin usually paler, surface densely punctured, opaque, more or less rugulose, sometimes slightly confluent transversely, the basal impressions wanting or very vague. Elytra with very vague costæ, the surface less coarsely punctured than the thorax, except near the base, toward the apex the punctures become rapidly finer and the surface more shining. Body beneath moderately coarsely punctured, the abdomen more densely and finely. Legs reddish-brown. Length .28—.37 inch; 7—9.5 mm.

In the males the anterior tarsi are dilated, the last ventral segment emarginate. Segments 2–3–4 of the abdomen have at middle a transverse space of denser punctuation and pubescence.

By means of a specimen kindly sent me by Mr. Fauvel I am enabled to realize the identity of our species with that previously described by Mulsant in Europe.

This species seems very rare in Europe, and is by no means commonly met with here, although widely diffused, and differs slightly in the various localities. In some specimens the thorax is very distinctly rugulose, almost finely granulate, in others the punctuation is almost simple. As a general rule the larger specimens have the rougher thorax, the costæ of the elytra more distinct and the basal foveæ of thorax more evident.

From a study of my specimens and a reading of Duval's account of the differences between *Vaudoueri* and *Stephensii*, it seems that these should be carefully studied before further continuing them as distinct.

Our species extends across the continent from Nova Scotia to California, and as far south as North Carolina.

H. concolor Lec. (*Dircæa*) New Species, 1866, p. 149.

Very similar in form and color to the preceding species, but much smaller, differing especially in the following particulars:

Antennæ very little longer than the head and thorax, piceous, the three basal joints testaceous, joints 6—10 not longer than wide. Legs fuscous, the tarsi paler. Length .25 inch; 6 mm.

The males have the anterior tarsi dilated and the last ventral feebly emarginate. The segments 2–3–4 have the densely punctured and pubescent transverse space extending nearly from side to side, although interrupted at middle.

Two specimens have been seen, both from Pennsylvania. I am indebted to Mr. Ulke for the loan of his specimen.

MALLODRYA n. g.

Form elongate, not very convex, recalling *Melandrya* or *Emmesa*. Maxillary palpi robust, not serrate, the last joint triangular, the distal side arcuate. Mandibles entire at apex. Labrum moderately prominent, entire. Eyes oval, lateral, slightly emarginate by the sides of front. Head prominent, very slightly narrowed behind the eyes, these distant from the thorax, the frontal suture distinct. Antennæ reaching the hind angles of the thorax, not thicker externally nor serrate, first joint conical, second small oval, third longest, fourth slightly shorter, joints 4–10 gradually shorter, eleventh longer, oval. Anterior coxæ oval, moderately prominent, narrowly separated by the acute prosternum, the coxal cavities with a very slight fissure externally, the trochantin not visible. Middle coxæ not prominent, separated by the mesosternum, which is slightly oblique in front, the coxal cavities open externally, the trochantin visible. Metasternum of moderate length, the side pieces rather wide. Legs moderate, tibial spurs short, tarsi slender, the penultimate joint not excavato-emarginate nor lobed beneath. Tarsal claws simple, merely slightly broader at base.

This genus is instituted for a rather inconspicuous species resembling a depressed Melandrya or an Emmesa, which cannot be made to enter any of the recognized subdivisions of the family. While related by many of its characters to Melandrya and the closely associated genera, it differs from all of them by the slender tarsi, the penultimate joint not being excavato-emarginate and the anterior tarsi not dilated in the males.

M. subænea n. sp.—Oblong, moderately convex, piceous with faint æneous surface lustre, moderately shining, with short, sparse brown hair. Head moderately coarsely and closely punctate. Thorax nearly twice as wide as long, narrower at apex, sides arcuate in front, a very slight sinuation posteriorly, the hind angles rectangular, margin distinct in its entire extent, disc moderately convex, median line distinctly impressed, basal impressions deep and rather broad, extending in front of middle, surface moderately coarsely and closely punctate, base bisinuate. Elytra coarsely and moderately deeply punctate, closely placed in the basal and scutellar regions, then gradually finer and sparser toward the

sides and apex. Body beneath piceous, coarsely punctate, the sides of the prothorax especially so, the abdomen more finely, with sparse pubescence. Legs piceous. Length .25—.34 inch; 6—8.5 mm.

The elytra have no traces of striæ and the costæ so often observed in the family are entirely wanting.

Occurs in southern Ohio collected by Mr. Charles Dury.

A recent study of the Melandryidæ makes it evident that the subdivisions are somewhat unnatural. By the removal of those genera with slender tarsi the relationship of the tribes to each other becomes more evident and the genera have a more natural sequence.

The following is the scheme proposed:

Penultimate joint of all the tarsi simple; the anterior tarsi of male not dilated..2.
Penultimate joint of the tarsi excavato-emarginate,* more or less lobed beneath; anterior tarsi of males dilated. ....5.
2.—Tarsal claws cleft to the base; middle coxæ prominent and contiguous.
Stenotrachelini.
Tarsal claws not cleft; middle coxæ not prominent, separated.....3.
3.—Antennæ with last four joints suddenly larger, forming a perfoliate club.
Tetratomini.
Antennæ gradually thicker, or filiform.....4.
4.—Front coxal cavities with an external fissure, more or less distinct.
Third joint of antennæ elongate; anterior coxæ not prominent, separated by prosternum.....**Penthini.**
Third joint of antennæ not much longer than fourth.
Anterior coxæ not prominent, rather widely separated...**Synchroini.**
Anterior coxæ moderately prominent and nearly contiguous.
Mallodryini.
Front coxal cavities without fissure.....**Orchesiini.**
5.—Tarsal claws simple, or very slightly broader at base.
Head not constricted behind.....**Melandryini.**
Head suddenly constricted behind the eyes.....**Scraptiini.**
Tarsal claws appendiculate.
Middle coxal cavities enclosed by the sterna, the head more or less prolonged in a beak; margin of thorax evident at base only.
Mycterini.
Middle coxal cavities open externally, head not prolonged; lateral margin of thorax entire, acute.....**Nothini.**

Stenotrachelini. This tribe remains as at present in the books and contains *Stenotrachelus* and *Scotodes*, each represented by one species.

Tetratomini consists of the single genus *Tetratoma* with three species.

* *Serropalpus* and *Allopoda* make a slight exception, the penultimate joint of the hind tarsi being simple.

Penthini is represented by *Penthe* with two species.

Synchroini, *Synchroa* with one species.

Mallodryini is instituted for a new genus, *Mallodrya*, with one species, with which I am at present inclined to associate *Sphalma quadricollis*, formerly placed in the Pythidæ.

Orchesiini remains the same as in the Classification, with the addition of *Holostrophus* formed by the division of *Eustrophus*.

Melandryini by the removal of certain disturbing elements formerly considered as subordinate groups, the Melandryini form a very homogeneous central series in the family. With an increase of species it is not quite so easy to subdivide the tribe into subordinate groups, but there are three fairly indicated groups illustrated by *Melandrya*, *Serropalpus* and *Hypulus*.

Scraptiini remains as at present constituted.

Mycterini is unchanged.

Nothini contain the genus *Nothus* alone. There is not perfect accord as to the name. *Osphya*, often used is merely a name mentioned in a foot note. Four years later Olivier gave the name *Nothus* with a description sufficient at the time, and I think, with Lacordaire, that the name should be adopted.

PYTHIDÆ.

TRIMITOMERUS n. g.

Mentum transverse, concave, truncate in front, ligula short, palpi three-jointed, the first two equal, the third slightly longer. Maxillary palpi not elongate, four-jointed, first joint short, second twice as long, third shorter than second, fourth as long as second, compressed cylindrical, slightly broader toward apex. Mandibles prominent, stout, acute at tip, a tooth within the apex. Labrum short, broadly emarginate. Head rather large, slightly narrowed behind the eyes. Eyes large, prominent, coarsely granulated and very slightly emarginate in front. Antennæ long, first joint stout, but not long; joints 2–8 moniliform, the third slightly longer, joints 9–11 elongate, together twice as long as the preceding joints, joints 9–10 nearly equal in length their inner apical angle somewhat prolonged, joint 11 nearly as long as the two preceding, broader at its basal half. Thorax oval, slightly transverse, lateral margin very obtuse. Scutellum rounded at tip. Elytra widest at base, gradually narrowed to apex. Anterior coxæ conical, prominent and contiguous, the prosternum very narrowly prolonged between them. Mesosternum horizontal, the

coxæ conical, oblique, contiguous, the cavities narrowly separated. Legs slender, moderately long. Tarsi slender, the last joint longer on the front and middle feet, first joint longer on the hind feet.

The head and thorax in form are not unlike that of Crymodes, the elytra are, however, narrowed toward the apex, being quite exceptional in the family. The general organization is that of the true Pythidæ as defined by Lacordaire. The antennæ are, however, very remarkable, and are not unlike those of many genera of Anobiini. The first eight joints are smooth with a few hairs, the last three opaque, the surface very finely punctured and apparently sensitive.

T. Riversii n. sp.—Moderately elongate, dark castaneous, elytra yellowish testaceous, surface shining. Head brown, densely coarsely punctured posteriorly, more sparsely in front, a slight concavity at middle of clypeus. Thorax castaneous, shining, sparsely punctate, disc slightly flattened, a vague oblique depression each side of middle, the two converging posteriorly. Elytra yellowish testaceous or luteous, very shining, punctures rather sparse and indistinct at base, more distinct near apex, margin with short ciliæ. Body beneath piceous, nearly smooth. Abdomen darker. Legs brown. Length .47 inch; 12 mm. Pl. iii, fig. 26.

The specimen before me is a male. The last ventral segment is broadly, but rather deeply triangularly emarginate, the last dorsal slightly emarginate. It is possible that the form of the antennæ may be merely sexual, or at least the female antennæ may not have the last three joints so elongate.

One specimen from Arizona kindly given me by Mr. J. J. Rivers, of the University of California.

PYTHO Latr.

The species of this genus, although few in number, seem to be misunderstood, more from the fact that the descriptions are scattered than from any real trouble in separating them. The following notes will assist in the determination:

Base of thorax constricted, forming a collar; median line of thorax broad and deep ..... **strictus.**

Base of thorax not constricted, the sides arcuate from the front to hind angles; median line of thorax fine.

Color, when mature, black, shining; legs black, surface without metallic lustre; prosternum in front and gula not punctate ..... **niger.**

Color piceous or castaneous; legs and underside reddish-yellow, surface blue or violet, even when partly immature; prosternum more or less punctate, gula transversely wrinkled ..... **americanus.**

P. strictus Lec., New Species, 1866. p. 168.

All the specimens seen are brownish with paler elytra, the surface without metallic lustre.

This species is the representative in our fauna of *kolvensis* Sahlb. The latter does not have the thorax constricted at base, but the median line is broad and the middle of the disc depressed below the level of the sides as in *strictus*.

Occurs from Canada to Pennsylvania.

P. americanus Kby., Faun. Bor. Am. iv, p. 165; *deplanatus* Mann., Bull. Mosc. 1853, iii, p. 268.

Beneath, legs and antennæ rufous, head and thorax piceous, elytra somewhat paler, surface with a bluish or violet lustre.

Varies with the elytra, or even the entire surface pale.

This species represents, in our fauna, *depressus* Linn., of Europe, and may even be identical with it.

The form described by Mannerheim is merely a poorly developed, immature specimen; similar have been seen.

Occurs from Canada to North Carolina.

P. niger Kby., Faun. Bor. Am. iv, p. 164.

Black, shining, without metallic lustre; legs black or brown.

In this species the underside may be paler, but never as pale as in *americanus*.

Occurs from Canada to New England States.

In the males of Pytho the antennæ are longer than in the female, joints 1–6 being very obviously longer than wide, 7–10 as wide as long, 11 longer. In the female joints 1–5 are longer, 6–10 wider than long, 11 a little longer. In nearly all females the base of the elytra is smooth, while in many males it is distinctly punctured.

PYROCHROIDÆ.

DENDROIDES Latr.

The species are separable in the following manner:

Thorax rather coarsely punctate.
  Elytra piceous.
    ♂. Ramus of third antennal joint arising very near the distal end; last joint scarcely as long as the three preceding.....**bicolor** ♂.
    ♀. Free angle of third joint distinctly prolonged; last joint equal to two preceding.....**bicolor** ♀.
Thorax smooth and shining.
  Elytra piceous.
    ♂. Ramus of third joint arising near the distal end; last joint as long as the five preceding.....**picipes** ♂.
  Elytra testaceous.

Thorax distinctly longer than wide.

♂. Ramus of third joint arising a little behind the distal end; last joint as long as the five preceding.....**concolor** ♂.

♀. Third joint distinctly prolonged, the fourth with a process half as long as the fifth joint; last joint as long as the two preceding.
concolor ♀.

Thorax as wide as long.

♂. Ramus of third joint near the end; last joint as long as the four preceding.....**ephemeroides** ♂.

♀. Joints 3-4-5 with free angle not prolonged, the sixth slightly, the rami of the following joints gradually longer, but in no case longer than the joint; last joint as long as the two preceding.
ephemeroides ♀.

D. bicolor Newm., Ent. Mag. v. p. 375; *canadensis* Lec., Proc. Acad. 1855. p. 275.

This species is usually known under the latter name and credited to Latreille. The latter author never named the species, and the first mention of the name is in Encyc. Meth. Ins. x, p. 261, where there is also no description. To Newman we owe the first description —brief, but sufficient.

The thorax, scutellum, underside of body and legs are rufotestaceous, the rest of the body piceous. Thorax sparsely punctate. Elytra moderately coarsely and closely punctate, the surface with short, semi-erect brown hair. Length .32—.55 inch; 8—14 mm.

The males are always smaller and have a narrower and less coarsely punctured thorax. The fifth ventral is broadly, but not deeply emarginate, the sixth, usually visible, feebly emarginate. In the females the fifth segment is broadly obtuse, the sixth not visible. The eyes are large and contiguous on the front as in all the species of the genus, while the female eyes are moderately separated.

Occurs from Canada to Florida and westward beyond the Mississippi River.

D. picipes Horn, Trans. Am. Ent. Soc. 1880, p. 154.

This species is almost entirely piceous, the scutellum, pro- and mesothorax, femora at base and anterior coxæ rufotestaceous. The thorax is smooth, as in the following species, the elytral sculpture denser and coarser than in *bicolor*, which it otherwise resembles. Length .42—.51 inch; 11—13 mm.

In the male the fifth ventral segment is truncate, the sixth feebly notched at middle.

Occurs in Washington Territory and northern California.

D. concolor Newm., Ent. Mag. v, p. 375; Lec., loc. cit.

Entirely pale yellowish testaceous. Thorax distinctly longer than wide in both sexes, surface smooth, the median longitudinal impression visible at base only. Length .35—.50 inch; 9—13 mm.

The fifth ventral of the male is broadly truncate, the sixth feebly notched. The fifth of male is broadly rounded.

Occurs in Canada and the northern portions of the adjacent States.

D. ephemeroides Mann. (*Pogonocerus*), Bull. Mosc. 1852, p. 348; *testaceus* Lec., Proc. Acad. 1855, p. 275.

This species is very like the preceding in form, color and sculpture. The thorax in both sexes is not longer than wide, and the median line is more or less impressed in its entire length. Length .50—.56 inch; 12.5—14 mm.

The ventral sexual characters are the same as in *concolor*.

Occurs from Canada to Washington Territory and Vancouver and to Alaska.

Pyrochroa fusicollis Mann., Bull. Mosc. 1854, iv, p. 301; Motsch. Schrenks Reise, p. 143.

Mr. Otto Lugger, of Baltimore, has given me two ♀ specimens of this species collected in Alaska. It was originally described from Kamtschatka, so that its occurrence in Alaska is possible.

DESCRIPTION OF PLATE III.

Fig. 1. Larva of *Glyptus sculptilis* as seen from above.
Fig. 2. The same, lateral view. Fig. 3. Head as seen from the side.
Fig. 4. Clypeus, mandible and antenna.
Fig. 5. Mentum and maxilla. Fig. 6. Mandible seen from beneath.
Fig. 7. Leg of *Glyptus* larva.
Fig. 8. Larva of *Polyphylla decemlineata* natural size.
Fig. 9. Head seen from above. Fig. 10. Head, lateral view.
Fig. 12. Maxilla, seen from beneath.
Fig. 13. Mentum, the lower side. Fig. 14. Mentum, the inner side.
Fig. 15. Anterior leg. Fig. 16. Posterior leg.
Fig. 17. Larva of *Platypsylla castoris*, upper view, magnified fifty diameters.
Fig. 18. View of underside.
Fig. 19. Underside of head, with mouth parts.
Fig. 20. Antenna of left side, seen from beneath.
Fig. 21. Front leg. Fig. 22. Posterior leg.
Fig. 23. Mouth parts of *Ægialites debilis*; *a*, mentum and ligula; *b*, maxilla; *c*, mandible from beneath; *d*, mandible, upper side.
Fig. 24. Mouth parts of *Othnius lugubris*; *a*, maxilla; *b*, mentum, ligula and palpi of ♂; *c*, mandible.
Fig. 25. *Anillus explanatus* Horn.
Fig. 26. *Trimitomerus Riversii* Horn.